WHAT IS CLAIMED IS:

1. A device for simplifying synthetic audio processing, which inputs an audio wave and performs modulation for outputting a synthetic audio, comprising:

a wave-gain look-up table, to store voltages Si of the audio wave and related gain values Yi, where $Yi = k \times \log Si$ and k is a constant;

a conversion circuit, to convert the audio wave into related gain values;

at least one adder, to add the gain values and a modulating gain value to thus output a synthetic gain value; and

an inverse conversion circuit, to convert the synthetic gain value into the synthetic audio based on the wave-gain look-up table.

2. The device as claimed in claim 1, wherein the at least one adder is an adder that adds the audio gain values and a mute modulating gain value.

3. The device as claimed in claim 2, wherein the at least one adder further includes an adder that adds the audio gain values and a volume control modulating gain value.

4. The device as claimed in claim 3, wherein the at least one adder further includes an adder that adds the audio gain values and a channel control modulating gain value.

5. The device as claimed in claim 4, wherein the at least one adder further includes an adder that adds the audio gain values and a left selection modulating gain value.

6. The device as claimed in claim 5, wherein the at least one adder

further includes an adder that adds the audio gain values and a right selection modulating gain value.